

SMT Power Inductor (MOLDING TYPE)

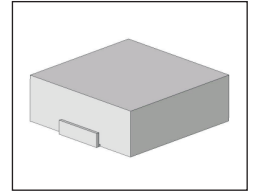
MPC Type

Features

- RoHS compliant.
- Low profile, high current SMD type.
- Frequency range up to 1MHz.
- Lowest DCR/ μ H, in this package size.
- Low buzz noise due to its gap-less structure.

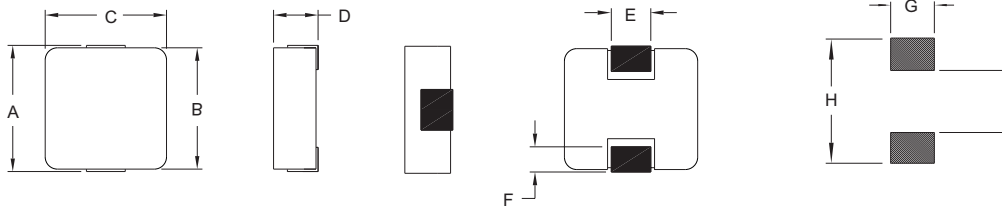
Applications

- Notebook/Desktop/Server/Video Card applications.
- High current POL converters.
- Low profile, high current power supplies.
- Battery powered devices.
- Ideal for power source circuits, DC-DC converter.
- DC-AC inverters inductor application.



Mechanical Dimension:

RECOMMENDED PAD PATTERNS



UNIT : mm

Part Series	A	B	C	D	E	F	G	H	I
MPC7X	7.70 Max.	6.70 \pm 0.3	6.70 \pm 0.3	3.00 Max.	3.00 \pm 0.5	1.80	4.00	8.70	4.00
MPC10X	11.50 Max.	10.00 \pm 0.3	10.00 \pm 0.3	4.00 Max.	3.00 \pm 0.5	2.20	4.00	12.50	6.50
MPC13X	14.00 Max.	12.90 \pm 0.3	12.90 \pm 0.3	6.50 Max.	4.70 \pm 0.5	2.30	5.50	15.00	7.80

Electrical Characteristics: At 25°C: 100KHz, 0.25V

PART NO.	Lo ¹ (μ H)	L1(μ H)		DCR		Ir ² (Adc)	Isat ⁴ (Adc)
		TYP.	Measuring Current(A)	(m Ω) TYP.	(m Ω) MAX.		
MPC730R68M1	0.68 \pm 20%	0.58	15.0	5.0	5.5	15.0	25.0
MPC730R82M1	0.82 \pm 20%	0.70	12.5	6.8	8.0	12.5	24.0
MPC7301R0M1	1.00 \pm 20%	0.85	11.0	8.0	10.0	11.0	23.0
MPC7301R5M1	1.50 \pm 20%	1.30	8.5	13.0	15.0	8.5	18.0
MPC7302R2M1	2.20 \pm 20%	1.90	7.0	18.0	20.0	7.0	15.0
MPC7303R3M1	3.30 \pm 20%	2.80	6.0	28.0	30.0	6.0	14.0
MPC7304R7M1	4.70 \pm 20%	4.00	5.0	37.0	40.0	5.0	10.0
MPC10402R2M1	2.20 \pm 20%	1.90	13.0	8.5	9.4	13.0	30.0
MPC10403R3M1	3.30 \pm 20%	2.90	9.0	11.7	12.8	9.0	19.0
MPC10404R7M1	4.70 \pm 20%	4.00	8.5	15.0	16.5	8.5	14.0
MPC10405R6M1	5.60 \pm 20%	4.70	8.0	17.4	19.2	8.0	12.0
MPC13654R7M1	4.70 \pm 20%	3.90	13.0	9.5	11.5	13.0	30.0
MPC13655R6M1	5.60 \pm 20%	4.70	11.0	11.5	13.2	11.0	19.0
MPC13656R8M1	6.80 \pm 20%	5.90	10.0	14.5	16.5	10.0	17.0
MPC13658R2M1	8.20 \pm 20%	7.10	9.0	15.0	17.0	9.0	16.5
MPC1365100M1	10.00 \pm 20%	8.40	8.5	17.0	18.8	8.5	16.0

1. Lo is inductance tested at 0 Adc, and L1 is inductance tested at Irated.
2. Ir is the DC current which cause the surface temperature of the part increase approximately than 40°C.
3. Isat is the DC current which cause the inductance drop approximately 30% of its nominal inductance without current.
4. Operating temperature range : -55°C to 125°C
5. Ambient temperature, Maximum : 85°C.
6. Temperature Rise, Maximum : 40°C.



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